Piro, Peter (DPH) </O=COMMONWEALTH OF

From: MASSACHUSETTS/OU=MASSMAIL-

01/CN=RECIPIENTS/CN=PETER.PIRO>

**Sent:** Friday, February 15, 2008 12:59 PM

To: Salemi, Charles (DPH) < Charles Salemi@MassMail.State.MA.US>; Nassif,

Julianne (DPH) <Julianne.Nassif@MassMail.State.MA.US>; Khan, Annie (DPH)

<a href="mailto:</a> <a href="mailto:Annie.Khan@MassMail.State.MA.US">MassMail.State.MA.US</a>

**Subject:** FW: Balance QC Program

Attach: UKAS M3003 (Uncertainty).pdf; UKAS-LAB14.pdf; NISTIR6919.pdf

From: Val Miller [mailto:val.miller@nist.gov]
Sent: Friday, February 15, 2008 8:40 AM

To: Piro, Peter (DPH)

Subject: Re: Balance QC Program

Mr. Piro,

At this time there is no specific NIST publication establishing calibration guidelines for balance calibrations in a non-commercial use. Being in the Public Health department, I suspect that the U.S. Pharmacopeia sections 41 and 1250 might be applicable to your situation.

I have attached a NIST Interagency Report that I wrote, NIST IR6919 on scale and balance uncertainty calculations but it has no calibration procedural information.

There are several good reference documents available on the Web:

Euramet/cg-18/v.01 Guidelines on the Calibration of Non-Automatic Weighing Instruments available at <a href="https://www.euromet.org/euramet/Calguides/EURAMET-cg-18-01">www.euromet.org/euramet/Calguides/EURAMET-cg-18-01</a> Non-

Automatic Weighing Instruments.pdf

NPL Measurement Good Practice Guide No. 70 ,June 2004 <a href="http://www.npl.co.uk/server.php?show=nav.637">http://www.npl.co.uk/server.php?show=nav.637</a> (Select to sort by Guide no. then scroll down to <a href="https://www.npl.co.uk/server.php?">Weighing in the pharmaceutical industry</a>.)

I've also attached a couple of other UKAS documents that might be of use to you.

Please feel free to call or e-mail me directly, as your message was forwarded from the general OWM e-mail. My contact information is at the end of this message.

Val

At 01:34 PM 2/14/2008 -0500, you wrote:

Hello,

My name is Peter Piro and I work at the Massachusetts Department of Public Health, State Laboratory Institute. Our laboratory has a number of analytical balances that are checked daily and monthly. Could you please email any pertinent Nist Publications that discuss developing a QC program for checking balances? Publication that discusses the possible sources of error and the cumulative effects on tolerance would be greatly appreciated. In addition, any publications that discuss the definitions of balance/weighing terminology (repeatability, linearity, reproducibility, sensitivity, etc) would be helpful as well. Thank you for your assistance.

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